

LISTING OF CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A process for ~~producing a product~~  
~~(1) having a structured surface (30c) for generating diffractive~~  
~~or refractive structures, in particular for generating~~  
~~microstructures (31, 32, 33, 34, 35, 36) in glass, at least~~  
comprising the steps of:

providing an auxiliary substrate ~~(10, 20)~~ having a  
structured surface ~~(20a)~~, the structured surface ~~(20a)~~ of the  
auxiliary substrate ~~(10, 20)~~ defining corresponding negative  
molds[,]; and

applying a first layer ~~(30)~~ of a first material to the  
structured surface ~~(20a)~~.

2. (Currently amended) The process as claimed in  
claim 1, ~~which also includes removal of further comprising~~  
removing the auxiliary substrate (10, 20).

3. (Currently amended) The process as claimed in ~~one of~~  
~~the preceding claims~~ claim 1, wherein the first material ~~(30)~~  
comprises glass or a material similar to glass.

4. (Currently amended) The process as claimed in ~~one of~~  
~~the preceding claims~~ claim 1, wherein the step for applying the  
first layer ~~(30)~~ comprises a deposition operation.

5. (Currently amended) The process as claimed in one of the preceding claims claim 1, wherein the first material (30) is sputtered or evaporated in order to be deposited on the structured surface (20a) of the auxiliary substrate (10, 20) the step for applying the first layer comprises sputtering or evaporating.

6. (Currently amended) The process as claimed in one of the preceding claims, wherein the first layer (30) is applied by evaporation coating, in particular is deposited by means of claim 1, wherein the step for applying the first layer comprises plasma ion assisted deposition.

7. (Currently amended) The method process as claimed in one of the preceding claims claim 1, wherein the structured surface (20a) of the auxiliary substrate (10, 20) defines a negative molds (21, 22, 23, 24) for find use with optical lenses or channels.

8. (Currently amended) The process as claimed in one of the preceding claims, wherein claim 1, further comprising planarizing the first layer (30) is planarized (30b).

9. (Currently amended) The process as claimed in one of the preceding claims, wherein claim 1, further comprising applying a product substrate (50) is applied.

10. (Currently amended) The process as claimed in one of the preceding claims claim 9, wherein a the product substrate (50) comprising comprises glass or a material similar to glass is applied.

11. (Currently amended) The process as claimed in one of the preceding claims claim 9, wherein a the product substrate (50) is adhesively joined (41) to the first layer (30).

12. (Currently amended) The process as claimed in one of the preceding claims claim 9, wherein a the product substrate (50) is anodically bonded (40) to the first layer (30).

13. (Currently amended) The process as claimed in one of the preceding claims claim 1, wherein the step of providing the auxiliary substrate comprises structuring a self-supporting carrier (10) formed from a second material, and the second material is structured directly in the auxiliary substrate.

14. (Currently amended) The process as claimed in one of the preceding claims, wherein claim 13, further comprising planarizing the auxiliary substrate (10) is planarized prior to the structuring step.

15. (Currently amended) The process as claimed in one of the preceding claims claim 13, wherein structuring the self-supporting carrier comprises the auxiliary substrate (10, 20) is at least partially etched etching away the auxiliary substrate.

16. (Currently amended) The process as claimed in ~~one of~~  
~~the preceding claims~~ claim 1, wherein the step of providing the auxiliary substrate comprises:

providing a carrier ~~(10)~~ made from a second material,  
applying a structuring layer ~~(20)~~ ~~is applied~~ to the carrier, and  
structuring the structuring layer ~~is structured~~.

17. (Currently amended) The process as claimed in claim 16, wherein the structuring layer ~~(20)~~ comprises a pre-structured film or foil ~~(25)~~.

18. (Currently amended) The process as claimed in claim 16  
~~or 17, wherein, further comprising~~ applying an intermediate layer ~~(15)~~ ~~is applied~~ between the carrier ~~(10)~~ and the structuring layer ~~(20)~~.

19. (Currently amended) The process as claimed in ~~one of~~  
~~the preceding claims, wherein~~ claim 1, further comprising applying a structuring layer ~~(20)~~ comprising a photoresist or gray scale resist ~~is applied~~.

20. (Currently amended) The process as claimed in ~~one of~~  
~~the preceding claims~~ claim 16, wherein the structuring step comprises a lithographic process or a mechanical pressing operation.

21. (Currently amended) ~~The A process for producing a product (1) having a structured surface (30c), in particular for generating microstructures (31, 32, 33, 34, 35, 36) in glass, and in particular as claimed in one of the preceding claims, comprising at least the steps of:~~

providing a negative mask (10, 20) having a structured surface (20a); and

depositing a first layer (30) of a first material on the negative mask in order to produce a positive impression (30e) of the structured surface (20a) of the negative mask in the first layer (30).

22. (Currently amended) The process for producing a product (1) comprising a product substrate (50) having a structured surface (30c), in particular for generating microstructures (31, 32, 33, 34, 35, 36) in glass, and in particular as claimed in one of the preceding claims, comprising at least the steps of:

providing the product substrate (50); and

depositing a first layer (30) of a first material, the first layer growing in the direction of the product substrate (50) with respect to the product which is to be produced.

23. (Currently amended) An intermediate article of manufacture product, in particular producible by the process as claimed in one of the preceding claims, comprising:

an auxiliary substrate (10, 20); and  
a first layer (30) of a first material joined to the auxiliary substrate (10, 20), the first layer (30) having a structured surface (30e) which that faces the auxiliary substrate (10, 20), and wherein the first layer (30) can be detached from the auxiliary substrate (10, 20) while retaining its the structured surface (30e).

24. (Cancelled).

25. (Currently amended) A product (1) having a structured surface (30e), in particular producible by the process as claimed in one of the preceding claims, comprising:

a product substrate (50) made from a third material; and  
a first layer (30) of a first material having a the structured surface (30e), the first layer (30) being applied fixedly to the product substrate (50).

26. (Currently amended) The product (1) as claimed in one of the preceding product claims claim 25, wherein the product substrate (50) and the first layer (30) are transparent.

27. (Currently amended) The product (1) as claimed in one of the preceding product claims claim 25, wherein the first layer (30) and the product substrate (50) comprise glass or a material similar to glass.

28. (Currently amended) The product ~~(1)~~ as claimed in ~~one of the preceding product claims~~ claim 25, wherein the first layer ~~(30)~~ comprises a layer produced by deposition.

29. (Currently amended) The product ~~(1)~~ as claimed in ~~one of the preceding product claims~~ claim 25, wherein the first layer ~~(30)~~ comprises a layer produced by sputtering or evaporation.

30. (Currently amended) The product ~~(1)~~ as claimed in ~~one of the preceding product claims~~ claim 25, wherein the first layer ~~(30)~~ is applied by ~~evaporation coating, in particular is deposited by means of plasma ion assisted deposition.~~

31. (Currently amended) The product ~~(1)~~ as claimed in ~~one of the preceding product claims~~ claim 25, wherein the structured surface ~~(30c)~~ of the first layer ~~(30)~~ defines optical lenses ~~(31, 32)~~ or channels.

32. (Currently amended) The product ~~(1)~~ as claimed in ~~one of the preceding product claims~~ claim 25, wherein the first layer ~~(30)~~ is planarized ~~(30b)~~ on a side which is opposite from the structured surface.

33. (Currently amended) The product ~~(1)~~ as claimed in ~~one of the preceding product claims~~ claim 25, wherein the first layer and the product substrate ~~(50)~~ are adhesively joined ~~(41)~~ to one another.

34. (Currently amended) The product ~~+1~~ as claimed in ~~one of the preceding product claims~~ claim 25, wherein the first layer ~~+30~~ and the product substrate ~~+50~~ are anodically bonded ~~+40~~.